AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for [[the]] heat ~~treatment of~~ treating solids containing iron oxide, ~~in which~~ comprising heating fine-grained solids ~~are heated~~ to a temperature of 700 to 1150°C in a fluidized bed reactor [[(8)]], ~~characterized in that~~ introducing from below a first gas or gas mixture ~~is introduced from below~~ into a mixing chamber region [[(15)]] of the reactor [[(8)]] through at least one gas supply tube [[(9)]], the at least one gas supply tube [[(9)]] being at least partly surrounded by a stationary annular fluidized bed [[(12)]] which is fluidized by supplying fluidizing gas, and ~~that the~~ adjusting gas velocities of the first gas or gas mixture and of the fluidizing gas for the annular fluidized bed ~~(12) are adjusted such that~~, wherein the gas velocities have a Particle-Froude-Number[[s]] in the gas supply tube ~~(9) are~~ between 1 and 100, in the annular fluidized bed [[(12)]] between 0.02 and 2, and in the mixing chamber [[(15)]] between 0.3 and 30.

2. (Currently Amended) The method as claimed in claim 1, ~~characterized in that~~ wherein the Particle-Froude-Number in the gas supply tube ~~(9) lies~~ is between 1.15 and 20.

3. (Currently Amended) The method as claimed in claim 1 ~~or 2, characterized in that~~ wherein the Particle-Froude-Number in the annular fluidized bed ~~(12) lies~~ is between 0.115 and 1.15.

4. (Currently Amended) The method as claimed in ~~any of the preceding claims, characterized in that~~ claim 1, wherein the Particle-Froude-Number in the mixing chamber ~~(15) lies~~ is between 0.37 and 3.7.

5. (Currently Amended) The method as claimed in ~~any of the preceding claims, characterized in that the filling level of~~ claim 1, adjusting solids in the reactor ~~(8) is adjusted~~ to have a filling level such that the annular fluidized bed [[(12)]] extends beyond the upper orifice end of the gas supply tube ~~(9), so~~ and that solids are constantly introduced into

the first gas or gas mixture and are entrained by the gas stream to the mixing chamber [[(15)]] located above the orifice region of the gas supply tube [[(9)]].

6. (Currently Amended) The method as claimed in ~~any of the preceding claims, characterized in that~~ claim 1, wherein the solids containing iron oxide comprises iron ore, nickel ore containing iron oxide, manganese ore containing iron oxide, or chromium ore containing iron oxide ~~is used~~ as starting material.

7. (Currently Amended) The method as claimed in ~~any of the preceding claims, characterized in that~~ claim 1, generating ~~fuel is supplied to the reactor (8), through whose combustion with an oxygen-containing gas~~ at least part of the amount of heat required for the thermal treatment ~~is generated~~ by combusting fuel supplied to the reactor with an oxygen-containing gas.

8. (Currently Amended) The method as claimed in claim 7, ~~characterized in that~~ wherein the fuel is introduced into the reactor [[(8)]] through the gas supply tube [[(9)]].

9. (Currently Amended) The method as claimed in claim 7 ~~or 8, characterized in that~~ wherein the fuel is introduced into the annular fluidized bed [[(12)]] and/or the mixing chamber [[(15)]] of the reactor [[(8)]].

10. (Currently Amended) The method as claimed in ~~any of claims 7 to 9, characterized in that~~ claim 7, wherein oxygen-containing gas with an oxygen content of 15 to 30 % is introduced into the reactor [[(8)]] either through a conduit above the annular fluidized bed or through the ~~central~~ gas supply tube, wherein the gas supply tube is centrally located [[(9)]].

11. (Currently Amended) The method as claimed in claim 7, ~~any of the preceding claims, characterized in that~~ wherein at least part of the exhaust gas of a second reactor ~~(14, 14')~~ downstream of the reactor [[(8)]] is introduced into the reactor [[(8)]] via the gas supply tube [[(9)]].

12. (Currently Amended) The method as claimed in claim 11, ~~characterized in that~~ supplying a mixture of exhaust gas from the second reactor ~~(14, 14')~~, of an oxygen-containing gas, and of gaseous fuel ~~is supplied~~ to the reactor [[(8)]] through the gas supply tube [[(9)]].

13. (Currently Amended) The method as claimed in claim 1, ~~any of the preceding claims, characterized in that a hot gas is supplied to the reactor (8) via the gas supply tube (9), which was generated in a combustion chamber (29) upstream of said reactor by the combustion of~~ combusting, in a combustion chamber upstream of the reactor, gaseous fuel and/or fuel-containing exhaust gas from a further reactor ~~(14, 14', 30)~~ downstream of the reactor [[(8)]] thereby generating a hot gas, and supplying the hot gas to the reactor via the gas supply tube.

14. (Currently Amended) The method as claimed in ~~any of the preceding claims, characterized in that~~ claim 1, wherein the fluidizing gas is air, wherein air is supplied to the reactor [[(8)]] as fluidizing gas for the annular fluidized bed [[(12)]].

15. (Currently Amended) The method as claimed in ~~any of the preceding claims, characterized in that~~ claim 1, wherein the pressure in the reactor [[(8)]] is between [[0,8]]0.8 and 10 bar.

16. The method as claimed in claim 1, ~~any of the preceding claims, characterized in that~~ wherein before entering the reactor [[(8)]], the solids are preheated in at least one preheating stage ~~consisting of~~ having a suspension heat exchanger [[(5)]] and a downstream cyclone [[(6)]].

17. (Currently Amended) The method as claimed in claim 16, ~~characterized in that~~ wherein the solids in [[the]]a first suspension heat exchanger [[(2)]] are heated by exhaust gas from [[the]]a second suspension heat exchanger [[(5)]] and in the second suspension heat exchanger ~~(5) by~~ the exhaust gas is from the reactor [[(8)]].

18. (Currently Amended) The method as claimed in claim 16 ~~or 17, characterized in that~~ wherein 0 to 100 % of the solids separated in a cyclone [[(3)]] of [[the]]a first preheating stage are directly introduced into the reactor [[(8)]] via a bypass

conduit [[(28)]] bypassing [[the]]a second preheating stage, whereas the remaining amount of the solids is first introduced into the second preheating stage[[,]] before the [[same]]the remaining amount of the solids is also introduced into the reactor [[(8)]].

19. (Currently Amended) A plant for [[the]] heat ~~treatment of~~ treating solids containing iron oxide~~, in particular for performing a~~by the method as claimed in ~~any of claims 1 to 18~~, claim 1, comprising a reactor [[(8)]] constituting a fluidized bed reactor, ~~characterized in that~~ wherein the reactor [[(8)]] has a gas supply system which is formed such that gas flowing through the gas supply system entrains solids from a stationary annular fluidized bed [[(12)]], which at least partly surrounds the gas supply system, into the mixing chamber [[(15)]].

20. (Currently Amended) The plant as claimed in claim 19, ~~characterized in that~~ wherein the gas supply system has at least one gas supply tube [[(9)]] extending upwards substantially vertically from the lower region of the reactor [[(8)]] into the mixing chamber [[(15)]] of the reactor [[(8)]], the gas supply tube [[(9)]] being at least partly surrounded by a chamber in which the stationary annular fluidized bed [[(12)]] is formed.

21. (Currently Amended) The plant as claimed in claim 20, ~~characterized in that~~ wherein the gas supply tube [[(9)]] is arranged approximately centrally with reference to the cross-sectional area of the reactor [[(8)]].

22. (Currently Amended) The plant as claimed in ~~any of claims 19 to 21, characterized in that~~ claim 19, wherein the gas supply tube [[(9)]] has openings~~, for instance in the form of slots,~~ at [[its]]the shell surface of the gas supply tube.

23. (Currently Amended) The plant as claimed in claim 19, wherein ~~any of claims 19 to 22, characterized in that~~ a cyclone [[(17)]] for separating solids is provided downstream of the reactor ~~(8), and that~~ wherein the cyclone [[(17)]] has a solids conduit [[(18)]] leading to the annular fluidized bed [[(12)]] of the reactor [[(8)]].

24. (Currently Amended) The plant as claimed in ~~any of claims 19 to 23, characterized in that~~ claim 19, wherein in the annular chamber of the reactor [[(8)]] a gas distributor [[(11)]] is provided, ~~which~~ wherein the gas distributor divides the chamber into an

upper fluidized bed region [[(12)]] and a lower gas distributor chamber [[(10)]], and that the gas distributor chamber [[(10)]] is connected with a supply conduit for fluidizing gas.

25. (Currently Amended) The plant as claimed in ~~any of claims 19 to 24, characterized in that~~ claim 19, wherein the reactor [[(8)]] has a fuel supply conduit ~~(21, 20)~~ leading to the gas supply tube [[(9)]] and/or a fuel supply conduit ~~(21, 20)~~ leading to the annular chamber.

26. (Currently Amended) The plant as claimed in ~~any of claims 19 to 25, characterized in that~~ claim 19, wherein the reactor [[(8)]] has a supply conduit for oxygen-containing gas, ~~which~~ wherein the supply conduit leads to the gas supply tube [[(9)]] or into a region above the annular fluidized bed [[(12)]].

27. (Currently Amended) The plant as claimed in ~~any of claims 19 to 26, characterized in that~~ claim 19, wherein upstream of the reactor [[(8)]], a combustion chamber [[(29)]] is provided.

28. (Currently Amended) The plant as claimed in ~~any of claims 19 to 27, characterized in that~~ claim 19, wherein the gas supply tube [[(9)]] of the reactor [[(8)]] is connected with another reactor ~~(14, 14', 30)~~ downstream of the reactor [[(8)]] via a supply conduit [[(20)]].

29. (new) The plant as claimed in claim 22, wherein the openings are in the form of slots.